

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	09/603,310
Filing Date	June 21, 2000
First Named Inventor	Carlton Sparrell
Art Unit	2665
Examiner Name	Thien D Tran
Attorney Docket Number	010-42

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
TT		US- 5,334,975	08-02-1994	Wachob et al.	
TT		US- 5,537,414	07-16-1996	Takiyasu et al.	
TT		US- 5,644,576	07-01-1997	Bauchot et al.	
TT		US- 5,677,927	10-14-1997	Fullerton et al.	
TT		US- 5,687,169	11-11-1997	Fullerton	
TT		US- 6,285,873 B1	09-04-2001	Quick, Jr.	
TT		US- 6,347,084 B1	02-12-2002	Hulyalkar et al.	
TT		US- 6,437,832 B1	08-20-2002	Grabb et al.	
TT		US- 6,492,904 B2	12-10-2002	Richards	
TT		US- 6,497,656 B1	12-24-2002	Evans et al.	
TT		US- 6,505,032 B1	01-07-2003	McCorkle et al.	
TT		US- 6,549,567 B1	04-15-2003	Fullerton	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

RECEIVED

MAR 24 2004

Technology Center 2600

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁴
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
TT		WO 02/31986 A2	04-18-2002	McCorkle et al.		

Examiner
Signature

Thien

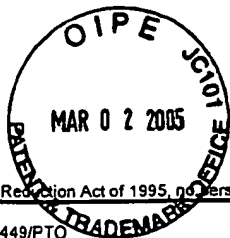
Date
Considered

06/08/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Complete if Known**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 7

Application Number	09/603,310
Filing Date	June 21, 2000
First Named Inventor	Carleton Sparrell
Art Unit	2665
Examiner Name	Thien D. Tran
Attorney Docket Number	00042

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
TT		US- 3,668,639	06-06-1972	Harmuth	
TT		US- 3,678,204	07-18-1972	Harmuth	
TT		US- 3,728,632	04-17-1973	Ross	
TT		US- 3,875,524	04-1975	Harzer et al.	
TT		US- 4,232,339	11-1980	Smiley et al.	
TT		US- 4,506,267	03-19-1985	Harmuth	
TT		US- 4,574,378	03-1986	Kobayashi	
TT		US- 4,641,317	02-03-1987	Fullerton	
TT		US- 4,644,534	02-1987	Sperlich	
TT		US- 4,651,152	03-17-1987	Harmuth	
TT		US- 4,672,608	06-1987	Ball et al.	
TT		US- 4,743,906	05-10-1998	Fullerton	
TT		US- 4,763,325	08-1988	Wolfe et al.	
TT		US- 4,813,057	03-14-1989	Fullerton	
TT		US- 5,134,408	07-28-1992	Harmuth	
TT		US- 5,148,174	09-15-1992	Harmuth	
TT		US- 5,153,595	10-06-1992	Harmuth	
TT		US- 5,159,343	10-27-1492	Harmuth	
TT		US- 5,307,081	04-26-1994	Harmuth	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁴
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
TT		WO 01/93434 A2	10-06-2001	Rofheart et al.		

Examiner
SignatureDate
Considered

06/08/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	3	of	7
-------	---	----	---

Complete if Known

Application Number	09/603,310
Filing Date	June 21, 2000
First Named Inventor	Carleton Sparrell
Art Unit	2665
Examiner Name	Thien D. Tran
Attorney Docket Number	00042

U. S. PATENT DOCUMENTS

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
TT		US- 5,920,278	07-06-1999	Tyler et al.	
TT		US- 5,940,435	08-1999	Hendrickson	
TT		US- 6,002,708	12-14-1999	Fleming et al.	
TT		US- 6,026,125	02-15-2000	Larrick, Jr. et al.	
TT		US- 6,041,051	03-2000	Doshi et al.	
TT		US- 6,055,411	04-25-2000	Ishida et al.	
TT		US- 6,064,697	05-2000	Yoshikawa	
TT		US- 6,067,648	05-2000	Hunter et al.	
TT		US- 6,069,887	05-2000	Geiger et al.	
TT		US- 6,097,766	08/2000	Okubo et al.	
TT		US- 6,115,390	09-05-2000	Chuah	
TT		US- 6,122,291 A	09-2000	Robinson et al.	
TT		US- 6,133,876	10-17-2000	Fullerton et al.	
TT		US- 6,178,217 B1	01-23-2001	Defries et al.	
TT		US- 6,181,687	01-2001	Chatschik Bisdikian	
TT		US- 6,212,230	04-2001	Rybicki et al.	
TT		US- 6,232,910 B1	05-15-2001	Bell et al.	
TT		US- 6,236,662 B1	05-2001	Reilly	
TT		US- 6,239,741 B1	05-2001	Fontana et al.	

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

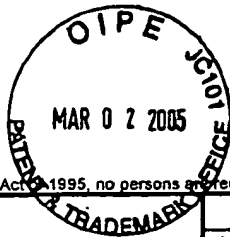
Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2005. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 7 of 7

Complete if Known

Application Number 09/603,310

Filing Date June 21, 2000

First Named Inventor Carleton Sparrell

Art Unit 2665

Examiner Name Thien D. Tran

Attorney Docket Number 00042

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
TT		"802.1D and 802.1Q Bridging Conformance" TA Document IEEE802.17-11Jul2001/040:3, 1394 Trade Association, 7 pages, October 2001.	
TT		Brunoi Pattan, A Brief Exposure to Ultra-Wideband Signaling, Microwave Journal, December 2003, 5 pages.	
TT		David G. Leeper, Wireless Data Blaster, Scientific American, May 2002, Pages 65-69.	
TT		Dr. James P. K. Gilb, Wireless Multimedia... A Guide to the IEEE 802.15.3 Standard, March 2004, 14 pages.	
TT		AETHER WIRE & LOCATION, INC., ROBERT FLEMING et al., "Integrated, Low-Power, Ultra-Wideband Tranceivers for Distributed Position Location and Communication," Technical Abstracts of Proposal to Defense Advanced Research Projects Agency (DARPA), Part I - Technical Proposal, 1998, Pages 1-52.	
TT		AETHER WIRE & LOCATION, INC., ROBERT FLEMING et al., "Low-Power, Miniature, Distributed Position Location and Communication Devices Using Ultra-Wideband, Nonsinusoidal Communication Technology," Semi-Annual Technical Report Prepared for: ARPA/FBI, July 1995, Pages 1-40.	
TT		HENNING F. HARMUTH, "Fundamental Limits for Radio Signals With Large Bandwidth," IEEE Transactions on Electromagnetic Compatibility, Vol. EMC-23, No. 1, February 1981, Pages 37-43.	
TT		HENNING F. HARMUTH, "Frequency-Sharing and Spread-Spectrum Transmission with Large Relative Bandwidth," IEEE Transactions on Electromagnetic Compatibility, Vol. EMC-20, No. 1, February 1978, Pages 232-239.	
TT		HENNING F. HARMUTH, "Applications of Walsh functions in communications," IEEE Spectrum, November 1969, Pages 82-91.	
TT		HENNING F. HARMUTH et al., "Large-Current, Short-Length Radiator for Nonsinusoidal Waves," IEEE International Symposium on Electromagnetic Compatibility, 1983, Pages 453-456.	

Examiner Signature

Thien

Date Considered

06/08/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.